

**SECOND
NOTICE OF PROPOSED MODIFICATIONS TO
TITLE 8, GENERAL INDUSTRY SAFETY ORDERS,
ARTICLE 106, SECTION 5110
OF THE CALIFORNIA CODE OF REGULATIONS**

Ergonomics

Pursuant to Government Code Section 11346.8(c), the Occupational Safety and Health Standards Board gives notice of the opportunity to submit written comments on the above-named regulation in which further modifications are being considered as a result of Board Member consideration.

On January 18 and 23, 1996 the Occupational Safety and Health Standards Board held Public Hearings to consider revisions to Title 8, General Industry Safety Orders, Section 5110 of the California Code of Regulations. The Standards Board received oral and/or written comments on the proposed revisions. The regulation was modified as a result of these comments.

On July 15, 1996 a Notice of Proposed Modifications to the original proposal was provided. However, since that time the proposal was discussed by the Board Members at its September 19, 1996 business meeting. At that time, the Board Members reconsidered the positions taken on certain issues in the proposal and as a result, it is necessary to make further amendments to Section 5110. Therefore, this Second Notice of Proposed Modifications relates to those issues which were reconsidered by the Board Members.

A copy of the full text of the regulation as originally proposed, and a copy of the full text with the initial and further modifications clearly indicated, are attached for your information. Any written comments on the further modifications must be received by 5:00 p.m. on October 22, 1996 at the Occupational Safety and Health Standards Board's Office, 1300 I Street, Suite 920, Sacramento, California 95814. Only written comments that concern the further modifications will be considered before the regulation is scheduled for adoption at the November 14, 1996 Business Meeting of the Occupational Safety and Health Standards Board.

The Occupational Safety and Health Standards Board's rulemaking files on the proposed action are open to public inspection Monday through Friday, from 8:30 a.m. to 4:30 p.m., at the Standards Board's Office, 1300 I Street, Suite 920, Sacramento, California.

Inquiries concerning the proposed modifications may be directed to the Executive Officer, John D. MacLeod at (916) 322-3640.

OCCUPATIONAL SAFETY AND
HEALTH STANDARDS BOARD

JOHN D. MACLEOD, Executive Officer

Date: October 2, 1996

FURTHER MODIFICATIONS TO THE ORIGINAL
PROPOSAL

(Section 5110, Ergonomics)

(initial modifications made on July 15, 1996
are indicated in strikeout and double-underscore)

(further modifications are indicated in bold
italics with deletions struckout
and new language double-underscored)

Add new Section 5110, Ergonomics to read:

Group 15. Occupational Noise and Ergonomics.

* * *

Article 106. Ergonomics.

Section 5110. ~~Ergonomics.~~ Repetitive Motion Injuries.

(a) This section shall apply to a job, process, or operation ~~or of~~ **substantially similar identical** work activity at the workplace where repetitive motion injuries (RMIs) occur after [OAL to fill in effective date]. For purposes of this section, ~~repetitive motion injuries~~ RMIs are injuries resulting from a repetitive job, process, or operation ~~or of~~ **substantially similar identical** work activity at the workplace which have been the predominant cause of a diagnosed, objectively identified, musculoskeletal injury to more than one employee within the last 12 months. **The diagnosis of a RMI shall be performed by a licensed physician. For definitional purposes, predominant means 50% or more of the injury was caused by a repetitive job, process, or operation of identical work activity.**

Exemption: Employers with 9 or fewer employees.

(b) Every employer subject to this section shall establish and implement an ergonomic program designed to minimize repetitive motion injuries RMIs. The ergonomic program shall include a worksite evaluation, control of ergonomic hazards exposures which have caused RMIs and training of employees.

(1) Worksite evaluation. Each job, process, or operation ~~or of~~ **substantially similar identical** work activity covered by this section or a representative number of such jobs, processes, or operations ~~or of~~ **substantially similar identical** work activities shall be evaluated for ergonomic hazards exposures which have caused repetitive motion injuries RMIs.

(2) Control of ergonomic hazards exposures which have caused RMIs. Any ergonomic hazard exposures that caused repetitive motion injuries RMIs shall, in a timely manner, be corrected or if not capable of being corrected have the ~~hazard~~ exposures minimized to the extent feasible. The employer shall consider engineering controls, such as work station redesign, adjustable fixtures or tool redesign, and administrative controls, such as job rotation, work pacing or work breaks.

(3) Training. Employees shall be provided job-specific training that includes an explanation of:

(A) The employer's ergonomic program;

(B) The ergonomic hazards exposures which cause have been associated with repetitive motion injuries RMIs;

(C) The symptoms and consequences of injuries caused by repetitive motion;

(D) The importance of reporting symptoms and injuries to the employer; and

(E) Methods used by the employer to minimize repetitive motion injuries RMIs.

(c) Measures implemented by an employer in an effort to minimize repetitive motion injuries RMIs shall satisfy the employer's obligations under this section, unless it is shown that a measure known to but not taken by the employer is substantially certain to cause a greater reduction in such injuries and that this alternative measure would not impose additional unreasonable costs.

~~**(d) Appendix. Appendix A is a non-mandatory appendix that employers may follow for video display terminal (VDT) operations and thereby be deemed in compliance with this section for such operations.**~~

Note: Authority cited: Sections 142.3 and 6357, Labor Code. Reference: Sections 142.3 and 6357, Labor Code.

Appendix A to Section 5110:
Ergonomics Program for VDT Operations
(Non-mandatory)

This ergonomics program may be used to comply with Section 5110 with respect to VDT operations.

I. Workstation and Training Evaluation

Each VDT workstation or a representative number from a group of similar VDT workstations shall be initially evaluated using the following worksheet. The evaluation should be repeated whenever the VDT workstation is significantly changed or in response to an ergonomic complaint or injury.

VDT ERGONOMICS EVALUATION WORKSHEET

WORKSITE/LOCATION:

EVALUATED BY: _____ DATE: _____

TOTAL NO. OF WORKSTATIONS REPRESENTED:

TYPE OF VDT EQUIPMENT USED:

TYPE OF TASKS PERFORMED:

TYPICAL HOURS AND WORK CONDITIONS OF VDT OPERATIONS:

WORKSTATION EQUIPMENT _____ Yes _____ No

Does the chair, work surface and VDT fit the operator or readily adjust, such that the operator can have the following elements of proper posture:

1. The keyboard and other input devices
_____ are at approximately elbow height. _____

2. The primary screen display is below eye
_____ level with primary viewing area from 1
_____ to 60 degrees below the horizontal plane
_____ at eye level. _____

3. Is there is adequate space beneath the
_____ work surface for the employee's legs. _____

4. Is the front edge of the keyboard, other
_____ input devices and/or their support
_____ surface (wherever palm, wrist or forearm
_____ contact occurs) rounded and/or padded. _____

5. Is the work surface of sufficient size to
accommodate the VDT components, document
holder and other task-dependent items. _____ Yes No

6. Is there adequate space and comfortable
support for the employee's knees and hips
to be bent at approximately 90 degrees
with arms at their sides and wrists
straight at the keyboard/input device. _____ Yes No

7. Is the screen display equipped or
positioned to minimize glare. _____ Yes No

WORK/REST SHIFTS _____ Yes No

8. Does the employee have frequent short
interruptions from keystroking/inputting
at regular intervals throughout the shift
during which they can perform other
duties or otherwise give their hands
and wrists a break. _____ Yes No

RECOGNITION AND TRAINING _____ Yes No

Are employees trained and aware of the following information:

9. The employer's use of this Appendix as their
ergonomic program. _____ Yes No

10. VDT equipment and/or work practices that
caused repetitive motion injuries
have been associated with RMIs. _____ Yes No

11. Symptoms of repetitive motion injuries
RMIs associated with VDT use. _____ Yes No

12. The importance of reporting symptoms and
injuries to the employer. _____ Yes No

13. The importance of employee taking frequent
short interruptions from keystroking/inputting

at regular intervals throughout the shift
during which they can perform other duties or
otherwise give their hands and wrists a break. _____

14. The importance of the employee maintaining
proper posture and proper adjustment of the
workstation to minimize repetitive
motion injuries RMIs. _____

15. Methods used by the employer to minimize
ergonomic injuries RMIs. _____

II. Control of Ergonomic Hazards. Exposures Which Have Caused RMIs.

Any VDT workstation(s) identified during the workstation evaluation as
posing an ergonomic risk (i.e. by an answer of No to any of the first 8
worksheet questions) shall be corrected by using any combination of feasible
engineering and/or administrative controls to change any all No answers to
Yes.

III. Training of VDT Operators.

A training program shall be provided to all employees determined by the
workstation evaluation to be at risk for the same type of repetitive motion
injuries RMIs that triggered the evaluation (i.e. by an answer of No to any of
the 15 worksheet questions). The training program shall address the
information provided in questions 9 through 15 of the evaluation in sufficient
detail that any all previous No answers to questions 9 to 15 are changed to
Yes.

FINAL PROPOSED TEXT

(Section 5110, Ergonomics)

(Note: Since this is the second 15-day Notice,
the format may be confusing. Therefore,
for purposes of clarity, the final proposed

**language with further modifications
is attached without strikeout and double underscore.)**

Add new Section 5110, Ergonomics to read:

Group 15. Occupational Noise and Ergonomics.

* * *

Article 106. Ergonomics.

Section 5110. Repetitive Motion Injuries.

(a) This section shall apply to a job, process, or operation of identical work activity at the workplace where repetitive motion injuries (RMIs) occur after [OAL to fill in effective date]. For purposes of this section, RMIs are injuries resulting from a repetitive job, process, or operation of identical work activity at the workplace which have been the predominant cause of a diagnosed, objectively identified, musculoskeletal injury to more than one employee within the last 12 months. The diagnosis of a RMI shall be performed by a licensed physican. For definitional purposes, predominant means 50% or more of the injury was caused by a repetitive job, process or operation of identical work activity.

Exemption: Employers with 9 or fewer employees.

(b) Every employer subject to this section shall establish and implement a program designed to minimize RMIs. The program shall include a worksite evaluation, control of exposures which have caused RMIs and training of employees.

(1) Worksite evaluation. Each job, process, or operation of identical work activity covered by this section or a representative number of such jobs, processes, or operations of identical work activities shall be evaluated for exposures which have caused RMIs.

(2) Control of exposures which have caused RMIs. Any exposures that caused RMIs shall, in a timely manner, be corrected or if not capable of being corrected have the exposures minimized to the extent feasible. The employer shall consider engineering controls, such as work station redesign, adjustable fixtures or tool redesign, and administrative controls, such as job rotation, work pacing or work breaks.

(3) Training. Employees shall be provided training that includes an explanation of:

(A) The employer's program;

(B) The exposures which have been associated with RMIs;

(C) The symptoms and consequences of injuries caused by repetitive motion;

(D) The importance of reporting symptoms and injuries to the employer; and

(E) Methods used by the employer to minimize RMIs.

(c) Measures implemented by an employer in an effort to minimize RMIs shall satisfy the employer's obligations under this section, unless it is shown that a measure known to but not taken by the employer is substantially certain to cause a greater reduction in such injuries and that this alternative measure would not impose additional unreasonable costs.

Note: Authority cited: Sections 142.3 and 6357, Labor Code. Reference: Sections 142.3 and 6357, Labor Code.

First Notice of Proposed Modifications